

Application No. 09/362,021

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Currently Amended) An improved print image, comprising:
an original image of original pixels further comprising at least one shape having at least one edge; and,
black auxiliary pixels;
where ~~a first the black auxiliary pixel pixels of said auxiliary pixels~~ is in replacement of an original pixel are substituted into the original image in proximity to the at least one edge and exterior of the at least one shape of for said original pixels for enhancing so as to mitigate edge displacement or halo problems in the printing of the original image.
2. (Canceled)
3. (Canceled)
4. (Currently Amended) The improved print image of claim 1, ~~the original image further comprising an original image shape, wherein the first black auxiliary pixel is pixels are adjacent to the at least one edge~~ original image shape.
5. (Canceled)
6. (Canceled)
7. (Currently Amended) The improved print image of ~~claim 6~~ claim 1, ~~further comprising a second auxiliary pixel, wherein the first black auxiliary pixel pixels and the second auxiliary pixel are spaced from the at least one edge~~ image.

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8. (Currently Amended) The improved print image of claim 7, the ~~first auxiliary pixel and the second~~ black auxiliary pixel pixels being equally distant from the at least one edge ~~original image shape~~.

9. (Currently Amended) The improved print image of claim 8, wherein the ~~first auxiliary pixel and the second~~ black auxiliary pixel pixels are at least one pixel distant from the at least one edge ~~original image shape~~.

10. (Currently Amended) The improved print image of claim 8, wherein the ~~first auxiliary pixel and the second~~ black auxiliary pixel pixels are at least two pixels distant from the at least one edge ~~original image~~.

11. (Canceled)

12. (Currently Amended) The improved print image of claim 1, wherein a pattern of black auxiliary pixels is substituted for a corresponding pattern of original pixels in the original image.

13. (Currently Amended) The improved print image of claim 12, wherein the pattern of black auxiliary pixels is clustered about a shape edge found in the original image.

14. (Currently Amended) The improved print image of claim 13, wherein the clustered black auxiliary pixels are in a checkerboard pattern.

15. (Currently Amended) The improved print image of claim 12, wherein the pattern of auxiliary black pixels is a dispersed array close to the at least one edge ~~a shape edge found in the original image~~.

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16. (Currently Amended) A method for improving the printing of an image, said method including:

receiving a source image of original pixel data further comprising at least one shape having at least one edge; and,

processing the source image original pixel data to embed black auxiliary pixels in proximity to the at least one edge and exterior of the at least one shape for said original pixel data to mitigate edge displacement or halo problems in the printing of the source image therein.

Q1 17. (Currently Amended) The method for improving the printing of an electrostatic image of claim 16, wherein the processing involves morphologically manipulating the original pixel data to substitute for embedding the black auxiliary pixels for original data pixels.

18. (Original) The method for improving the printing of an electrostatic image of claim 17, wherein morphologically manipulating comprises:

storing the source image in a first memory space;
replicating the source image as a working image in a second memory space;
dilating the working image to produce a first resultant working image;
outlining the first resultant working image to produce outline pixels in a second resultant working image;
substituting auxiliary pixels for the outline pixels in the second resultant working image; and,
performing an OR operation of the second resultant working image with the source image in the first memory space, to thus produce auxiliary pixels in the source image at those pixel locations corresponding to the outline data in the second resultant working image.

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19. (Currently Amended) In a digital imaging system receiving document images, a method for optimizing a rendition thereof, comprising:

receiving a document image representation in a form suitable for processing the document image further comprising at least one shape having at least one edge; and,

processing the document image in an image processing system to embed black auxiliary pixels in proximity to the at least one edge and exterior of the at least one shape therein in order to improve the rendition of such document image.

20. (Original) The digital imaging system of claim 19, wherein the image processing system includes, a digital front end.

21. (Original) The digital imaging system of claim 19, wherein the processing includes morphologically manipulating the document image.

22. (Original) The digital imaging system of claim 21, wherein morphological manipulation comprises:

storing the document image in a first memory space;
replicating the document image as a working image in a second memory space;
dilating the working image to produce a first resultant working image;
outlining the first resultant working image to produce outline pixels in a second resultant working image;
substituting auxiliary pixels for the outline pixels in the second resultant working image; and,
performing an OR operation of the second resultant working image with the document image in the first memory space, to thus produce auxiliary pixels in the stored document image at those pixel locations corresponding to the outline data in the second resultant working image.